European Journal of Clinical Investigation

The Journal of the European Society for Clinical Investigation

Editors-in-Chief R. Arnold, M. Brandis, H. Kern

Volume 20, 1990

Blackwell Scientific Publications
Oxford London Edinburgh Boston Melbourne Paris Berlin Vienna

© 1990 Blackwell Scientific Publications Ltd. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Blackwell Scientific Publications Ltd for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of $05·00 per copy is paid directly to CCC, 27 Congress Street, Salem, MA 01970, USA. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Editor 0014-2972/90 $05.00.

The use of registered names, trade marks, etc., in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulation and therefore free for general use.

Published by Blackwell Scientific Publications Ltd
Osney Mead, Oxford, OX2 0EL, UK.
25 John Street, London, WC1N 2BL, UK.
23 Ainslie Place, Edinburgh, EH3 6AJ, UK.
3 Cambridge Center, Suite 208, Cambridge, MA 02142, USA.
54 University Street, Carlton, Victoria 3053, Australia.

Other editorial offices

Arnette SA, 2 rue Casimir-Delavigne, 75006 Paris, France

Blackwell Wissenschaft, Meinekestrasse 4, D-1000 Berlin 15, FRG

Blackwell MZV, Feldgasse, A-1238 Wien, Austria

ISSN 0014-2972

Printed in Great Britain at the Alden Press Ltd, Oxford.

Contents of Volume 20

Number 1, February 1990

DNA polymorphisms of the α_1-antitrypsin gene region in patients with chronic obstructive disease
C. Gespach, D. Fagot and S. Emami 1

Altered collagen metabolism in osteogenesis imperfecta fibroblasts: a study on 33 patients with diverse forms
R. E. Brenner, U. Vetter, A. Nerlich, O. Wörsdorfer, W. M. Teller and P. K. Müller 8

Evaluation of a euglycaemic clamp procedure as a diagnostic test in insulinoma patients
M. Nauck, F. Stöckmann and W. Creutzfeldt 15

Increased hepatic efficacy of urea synthesis from alanine in insulin-dependent diabetes mellitus
T. P. Almdal, T. Jensen and H. Vilstrup 29

Normalization of enhanced hepatic gluconeogenesis by the antiglucocorticoid RU 38486 in acutely uraemic rats
R. M. Schaefer, W. Riegel, E. Stephan, H. Keller, W. H. Hörl and A. Heidland 35

The effect of amino acid infusion on leg protein turnover assessed by L-[^{15}N]phenylalanine and L-[1-^{13}C]leucine exchange
W. M. Bennet, A. A. Connacher, C. M. Scrimgeour and M. J. Rennie 41

The effect of α-adrenergic blockade on responses of peripheral blood cells to acute insulin-induced hypoglycaemia in humans
B. M. Fisher, D. A. Hepburn, J. G. Smith and B. M. Frier 51

Postpartum thyroid dysfunction and HLA status
M. Kologlu, H. Fung, C. Darke, C. J. Richards, R. Hall and A. M. McGregor 56

Autoradiographic localization of Na^+-dependent L-valine uptake by the jejunum of streptozotocin-diabetic rats
E. S. Debnam and H. Y. Ebrahim 61

Are the serum levels of endotoxin-binding proteins reliable predictors of complications in the course of peritonitis
D. Berger, W. R. Kitterer and H. G. Berger 66

Normal homeosatsis of fibrinolysis in nephrogenic diabetes insipidus in spite of defective V_2-receptor-mediated responses of tissue plasminogen activator release
E. J. P. Brommer, H. Brink, F. H. M. Derkx, M. A. H. Schalekamp and J. Stibbe 72

Relationship between plasma levels of components of the fibrinolytic system and acute-phase reactants in patients with uterine malignancies
J. C. Kirchheimer, H. Kölbl, G. Tatra and B. R. Binder 79

Congestive heart failure: involvement of perivascular peptides reflecting activity in sympathetic, parasympathetic and afferent fibres
L. Edvinsson, R. Ekman, P. Hedner and S. Valdemarsson 85

Haemodynamic and neurohumoral responses in elderly patients with postural hypotension
M. Lye, E. Vargas, E. B. Faragher, I. Davies and C. Goddard 90

The role of lipids in the pathogenesis of glomerulosclerosis in the rat following subtotal nephrectomy
H. C. Rayner, V. L. Ross-Gilbertson and J. Walls 97

Experimental atherosclerosis: effects of oestrogen and atherosclerosis on thromboxane and prostacyclin formation
M. Fogelberg, O. Vesterqvist, U. Diczfalusy and P. Henriksson 105

Tubular site of renal sodium retention in ascitic liver cirrhosis evaluated by lithium clearance
P. Angeli, A. Gatta, L. Caregaro, F. Menon, D. Sacerdoti, C. Merkel, M. Rondana, R. de Toni and A. Ruol 111

Number 2, April 1990

Review: Human bone marrow transplantation
R. Storb and C. D. Buckner 119

IgG subclass distribution and relative functional affinity of thyroid microsomal antibodies in postpartum thyroiditis
A. P. Weetman, H. Y. M. Fung, C. J. Richards and A. M. McGregor 133

Inheritable abnormal lipoprotein metabolism in Werner's syndrome similar to familial hypercholesterolaemia
S. Mori, K. Yokote, N. Morisaki, Y. Saito and S. Yoshida 137

Bile acid metabolism in familial dysbetalipoproteinaemia: studies in subjects with the apolipoprotein E-2/2 phenotype
B. Angelin, L. Holmquist, B. Leijd and K. Einarsson 143

The effects of simvastatin on plasma lipoproteins and cholesterol homeostasis in patients with heterozygous familial hypercholesterolaemia
F. C. Hagemenas, A. S. Pappu and R. D. Illingworth 150

Uptake of triglyceride fatty acids in adipose tissue *in vivo* in man
P. Mårin, M. Rebuffé-Scrive and P. Björntorp 158

Evidence for abnormal platelet glycoprotein expression in diabetes mellitus
D. Tschoepe, P. Roesen, L. Kaufmann, S. Schauseil, B. Kehrel, H. Ostermann and F. A. Gries 166

Plasma free N-terminal fibronectin 30-kDa domain as a marker of endothelial dysfunction in type 1 diabetes mellitus
J. Škrha, I. Vacková, J. Kvasnička, V. Stibor, P. Štolba, H. Richter and H. Hörmann 171

Pituitary-gonadal hormones and adrenal androgens in non-cirrhotic female alcoholics after cessation of alcohol intake
M. Välimäki, R. Pelkonen, M. Härkönen, P. Tuomala, P. Koistinen, R. Roine and R. Ylikhari 177

Encephalin affects ion transport via the enteric nervous system in guinea-pig ileum
J. D. Schulzke, M. Fromm, E. O. Riecken and W. Reutter 182

The effect of oral glucose, protein, fat and water loading on blood pressure and the gastrointestinal peptides VIP and somatostatin in hypertensive elderly subjects
R. W. M. M. Jansen, T. L. Peeters, H. J. J. van Lier and W. H. L. Hoefnagels 192

Angiotensin II augments medullary hypoxia and predisposes to acute renal failure
M. Brezis, Z. Greenfeld, A. Shina and S. Rosen 199

Renal haemodynamic changes in response to moderate hyperglycaemia in type 1 (insulin-dependent) diabetes mellitus
R. P. F. Dullaart, S. Meijer, W. J. Sluiter and H. Doorenbos 208

Long-term effects of acetazolamide and sodium chloride loading on cisplatin nephrotoxicity in the rat
H. Th. Heidemann, K. Hoffmann and G. Inselmann 214

Skin microcirculation and regional peripheral resistance in patients with chronic renal anaemia treated with recombinant human erythropoietin
A. Creutzig, L. Caspary, B. Nonnast-Daniel, J. Bahlmann, K. Kühn, R. Brunkhorst, E. Reimers, K. M. Koch and K. Alexander 219

Number 3, June 1990

Review: *ras* oncogenes: their role in neoplasia
M. Barbacid 225

Review: A new perspective on the antiatherosclerotic activity of Ca^{2+}-channel blockers
L. H. Block and L. R. Emmons 236

Accelerated atherogenesis occurs following platelet destruction and increases in megakaryocyte size and DNA content
S. Dalby Kristensen, K. M. Roberts, Y. T. Kishk and J. F. Martin 239

Lipoprotein-induced modulation of cyclosporine-A-mediated immunosuppression
S. Rödl, G. Fuchs, G. Khoshsorur, F. Iberer and K. H. Tscheliessnigg 248

Mechanisms of hypercholesterolaemia in glycogen storage disease type I: defective metabolism of low density lipoprotein in cultured skin fibroblasts
E. Levy, L. Thibault, C. C. Roy, J. Letarte, M. Lambert and E. G. Seidman 253

Biliary lipids in familial combined hyperlipidaemia: effects of acipimox therapy
S. Ericsson, M. Eriksson and B. Angelin 261

Tubular sodium handling in cirrhotic patients with ascites as analysed by the renal lithium clearance method
J. Diez, M. A. Simon, F. Anton, F. J. Indart and J. Prieto 266

Abnormal 3,4-dihydroxyphenylalanine (dopa) concentrations in plasma and urine of patients with cystic fibrosis
M. H. Schöni, K. Türler, H. Käser and R. Kraemer 272

The effect of pharmacological modification of gastric emptying and mouth-to-caecum transit time on the absorption of sugar probe marker molecules of intestinal permeability in normal man
A. L. Brunetto, A. D. J. Pearson, R. Gibson, D. N. Bateman, M. U. Rashid and M. F. Laker 279

Exercise-induced changes in insulin-like growth factors and their low molecular weight binding protein in healthy subjects and patients with growth hormone deficiency
P. Bang, J. Brandt, M. Degerblad, G. Enberg, L. Kaijser, M. Thorén and K. Hall 285

Influence of leucine infusion on intracellular amino acids in humans
A. Alvestrand, L. Hagenfeldt, M. Merli, A. Oureshi and L. S. Eriksson 293

Smoking depresses adipose lipoprotein lipase response to oral glucose
T. Chajek-Shaul, E. M. Berry, E. Ziv, G. Friedman, O. Stein, G. Scherer and Y. Stein 299

Galactose removal kinetics during hypoxia in perfused pig liver: reduction of V_{max}, but not of intrinsic clearance V_{max}/K_m
S. Keiding, S. Johansen and N. Tygstrup 305

A circadian rhythm of serum osteocalcin levels in postmenopausal osteoporosis
P. Pietschmann, H. Resch, W. Woloszczuk and R. Willovonseder 310

Reduction of lymphocytic β-adrenoceptor level in chronic alcoholics and rapid reversal after ethanol withdrawal
T. Mäki, E. Heikkonen, T. Härkönen, K. Kontula, M. Härkönen and R. Ylikahri 313

Inhibitory effects of pertussis toxin on the cAMP generating system in human mononuclear leucocytes
M. Griese, S. Griese and D. Reinhardt 317

Cyclic nucleotide phosphodiesterases and methyltransferases in purified lymphocytes, monocytes and polymorphonuclear leucocytes from healthy donors and asthmatic patients
A. F. Prigent, P. Fonlupt, M. Dubois, G. Némoz, L. Timouyasse, H. Pacheco, Y. Pacheco, N. Biot and M. Perrin-Fayolle 323

Longitudinal study of bone mineral content in the lumbar spine, the forearm and the lower extremities after spinal cord injury
F. Biering-Sørensen, H. H. Bohr and O. P. Schaadt 330

Platelet P^1,P^4-Di (adenosine 5^1) tetraphosphate (AP_4A) in migraine patients before and during β-adrenoceptor blockade
K. Winther, C. Hedman and H. Flodgaard 336

Number 4, August 1990

The Mack Forster Award
A. M. McGregor 339

Review: The molecular genetics of the α globin gene family
D. R. Higgs 340

Postprandial exocrine pancreatic function during long-term treatment with the somatostatin analogue SMS 201-995 in acromegalic patients
P. A. Van Liessum, W. P. M. Hopman, G. F. F. M. Pieters, A. G. H. Smals, A. Tangerman, J. B. M. J. Jansen, G. Rosenbusch and C. B. H. W. Lamers 348

Detection of autoantibodies to Sm antigen in systemic lupus erythematosus by immunodiffusion, ELISA and immunoblotting: variability of incidence related to assays and ethnic origin of patients
N. Abuaf, C. Johanet, P. Chretien, B. I. Absalon, J. C. Homberg and J. F. Buri 354

Castration prohibits glomerular hypertrophy and proteinuria in uninephrectomized male rats
U. Gafter, M. Ben-Bassat and J. Levi 360

Cellular targets and receptors for interleukin-6 I. *In vivo* and *in vitro* uptake of IL-6 in liver and hepatocytes
O. Sonne, O. Davidsen, B. K. Møller and C. Munck Petersen 366

Cellular targets and receptors for interleukin-6 II. Characterization of IL-6 binding and receptors in peripheral blood cells and macrophages
C. Munck Petersen, O. Davidsen, S. K. Moestrup, O. Sonne, A. Nykjær and B. K. Møller 377

Further studies on the mechanism of the natriuretic response to low-dose dopamine in man: effect on lithium clearance and nephrogenic cAMP formation
D. F. Schoors and G. Dupont 385

Dexamethasone increases perproparathyroid hormone messenger RNA in human hyperplastic parathyroid cells *in vitro*
M.-N. Peraldi, E. Rondeau, V. Jousset, A. El M'Selmi, R. Lacave, F. Delarue, J.-M. Garel and J.-D. Sraer 392

Platelet aggregability in humans: contrasting *in vivo* and *in vitro* findings during sympatho-adrenal activation and relationship to serum lipids
P. T. Larsson, P. Hjemdahl, G. Olsson, B. Angelin and G. Hornstra 398

IgG heavy-chain subclass restriction of thyrotropin-binding inhibitory immunoglobulins in Graves' disease
A. P. Weetman, P. G. H. Byfield, C. Black and C. B. Reimer 406

Ascorbate-induced hyperoxalaemia has no significant effect on lactate generation or erythrocyte 2, 3, diphosphoglycerate in dialysis patients
C. R. V. Tomson, S. M. Channon, M. K. Ward and M. F. Laker 411

Sensorineural hearing loss owing to deficient G proteins in patients with pseudohypoparathyroidism: results of a multicentre study
T. Koch, E. Lenhardt, H. Böttinger, T. Pfueffer, D. Palm, D. Fischer, H. Radeke and R. D. Hesch 416

In vitro remodelling of plasma lipoproteins in whole plasma by lipoprotein lipase in primary and secondary hypertriglyceridaemia
E. Levy, R. J. Deckelbaum, R. L. Thibault, E. Seidman, T. Olivecrona and C. C. Roy 422

Gastric microvascular endothelium: a major target for aspirin-induced injury and arachidonic acid protection. An ultrastructural analysis in the rat
A. Tarnawski, J. Stachura, H. Gergely and D. Hollander 432

Refeeding after starvation in the rat: comparative effects on lipids, proteins and carbohydrates on jejunal and ileal mucosal adaptation
J.-P. Buts, V. Vuverman, C. Barudi, N. De Keyser, P. Maldague and C. Dive 441

Endotoxin stimulated peritoneal macrophages obtained from continuous ambulatory peritoneal dialysis patients show an increased capacity to release interleukin-1β *in vitro* during infectious peritonitis
M. W. J. A. Fieren, G. J. C. M. Van Den Bemd and I. L. Bonta 453

Erythrocyte aggragation: the roles of cell deformability and geometry
W. H. Reinhart and A. Singh 458

Effect of a monosaturated diet vs. a polyunsaturated fatty acid-enriched diet on blood pressure in normotensive men and women
R. P. Mensink, A. M. Stolwijk and M. B. Katan 463

Cholesterol synthesis in patients with glutathione deficiency
J. Gustaffsson, B. Carlsson and A. Larsson 470

Analysis of radiolucent gallstones by computed tomography for *in vivo* estimation of stone components
A. Rambow, M. Staritz, U. Wosiewitz, P. Mildeberger, M. Thelen and K. H. Meyer 475

Erratum 479

Number 5, October 1990

Review: Host and tumour factors in metastasis
I. J. Fidler 481

Interferon-γ reverses the stimulation of collagen but not fibronectin gene expression by transforming growth factor-β in normal human fibroblasts
J. Varga, A. Olsen, J. Herhal, G. Constantine, J. Rosenbloom and S. A. Jimenez 487

Follow-up of the serum levels of extracellular matrix components in acute and chronic pancreatitis
G. Adler, J. Kropf, E. Grobe and A. M. Gressner 494

Plasma concentrations of endothelin in man: arterio-venous differences and release during venous stasis
O. F. Wagner, P. Nowotny, H. Vierhapper and W. Waldhäusl 502

Arachidonic acid absorption in human jejunum in organ culture: effects of ethanol
H. Barros, Q. Chen, C.-H. Florén and Å. Nilsson 506

Acute effects of antacids on gastric juice components in duodenal ulcer patients
R. Weberg, K. Berstad and A. Berstad 511

Antibodies to cytoskeletal proteins in patients with Crohn's disease
W. J. Mayet, A. G. Press, E. Hermann, R. Moll, M. Manns, K. Ewe and K. H. Meyer zum Büschenfelde 516

Effect of synthetic human glucose-dependent insulinotrophic polypeptide (hGIP) on the release of insulin in man
H. S. Füessl, Y. Yiangou, M. A. Ghatei, F. D. Goebel and S. R. Bloom 525

Increased insulin resistance and fat cell lipolysis in obese but not lean women with a high waist/hip ratio
K. Landin, P. Lönnroth, M. Krotkiewski, G. Holm and U. Smith 530

Preservation of the porcine pancreas with HTK and Euro-Collins solution: studies in a reperfusion system
U. Leonhardt, M. Barthel, A. Tytko, M. Dröge, E. G. Siegel, K. Nebendahl, H. Köhler and W. Creutzfeldt 536

Hepatitis B vaccination of haemodialysis patients: randomized controlled trial comparing plasma-derived vaccine with and without pre-S_2 antigen
M. B. L. Smit-Leijs, P. Kramer, R. A. Heijtink, W. C. J. Hop and S. W. Schalm 540

Hyperoxaluria or hypercalciuria in nephrolithiasis: the importance of renal tubular functions
M. Lindsjö, B. Fellström, B. G. Danielson, G. P. Kasidas, G. A. Rose and S. Ljunghall 546

Chemotaxis of the peritoneal cells and the detection of a chemo-attractant in the effluent from peritoneal dialysis patients
H. J. Bos, D. M. Boorsma, C. W. Tuk, J. C. de Veld, A. J. C. Van der Muysenberg, T. J. M. Helmerhorst, D. G. Struijk, H. Van Bronswijk and R. H. J. Beelen 555

Role of excretory graft function for erythropoietin formation after renal transplantation
K.-U. Eckardt, U. Frei, V. Kliem, C. Bauer, K. M. Koch and A. Kurtz 563

Number 6, December 1990

Iodide-induced hypothyroidism in patients after thyroid resection
O. H. Clark, R. R. Cavalieri, C. Moser and S. H. Ingbar 573

The activity of cholesterylester transfer protein is decreased in hypothyroidism: a possible contribution to alteration in high-density lipoproteins
R. P. F. Dullaart, K. Hoogenberg, J. E. M. Groener, L. D. Dikkeschei, D. W. Erkelens and H. Doorenbos 581

Arterial wall hypoxia following hyperfusion through the vasa vasorum is an initial lesion in atherosclerosis
J. F. Martin, R. F. G. Booth and S. Moncada 588

Increased high-density lipoprotein cholesterol concentration in alcoholics is related to low cholesterylester transfer protein activity
M. J. Savolainen, M. Hannuksela, S. Seppanen, K. Kervinen and Y. Kesaniemi 593

The effect of high-fibre diet on plasma lipoproteins and hormones in genetically obese Zucker rats
A. Mazur, C. Remesy and C. Demigne 600

Increased thromboxane formation in patients with anti-phospholipid syndrome
L. Arfors, O. Vesterqvist, H. Johnsson and K. Green 607

Adrenergic supersensitivity in Parkinsonians with orthostatic hypotension
J. M. Senard, P. Valet, G. Durrieu, M. Berlan, M. A. Tran, J. L. Montastruc, A. Rascol and P. Montastruc 613

Cystic fibrosis patients' B-lymphocyte response is resistant to the *in vitro* enhancing effect of corticosteroids
D. Emilie, M. C. Crevon, R. Chicheportiche, M. T. Auffredou, R. Barot-Ciorbaru, G. Lenoir, J. M. Dayer and P. Galanaud 620

Thrombin-antithrombin III complex in fulminant hepatic failure: evidence for disseminated intravascular coagulation and relationship to outcome
P. G. Langley, A. Forbes, R. D. Hughes and R. Williams 627

Atrial natriuretic factor, cyclic 3′,5′-guanosine monophosphate and prostaglandin E2 in liver cirrhosis: relation to blood volume and changes in blood volume after furosemide
B. Jespersen, L. Jensen, S. S. Sorensen and E. B. Pedersen 632

Exercise-induced hyperkalaemia can be reduced in human subjects by moderate training without change in skeletal muscle Na,K-ATPase concentration
K. Kjeldsen, A. Norgaard and C. Hau 642

Author index 649

Keyword index 651